

REMARKS

Claims 1, 3-11 and 13-20 are pending in this application. Claims 1 and 11 are independent claims. By this Amendment, claims 2 and 12 are cancelled without prejudice or disclaimer. Claims 1, 8-11, 15 and 18-20 are amended. No new matter is added.

Rejection Under 35 U.S.C. §112

Claim 2 is rejected under 35 U.S.C. §112, second paragraph, because the phrase “semiconductor protection” is not clear. Claim 8 is rejected under 35 U.S.C. §112, second paragraph, because the phrase “the protective device and the switching device having standard installation dimensions” is not clear.

As the claims are amended to overcome the rejections, withdrawal of the rejections is respectfully requested.

Prior Art Rejections

Claims 1, 6, 11 and 16 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,822,164 to Graff. Claims 2 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Graff in view of US Patent 4,054,818 to Risberg. As independent claims 1 and 11 are amended to include the subject matter of claims 2 and 12, respectively, the rejections are considered together. The rejections are respectfully traversed.

Neither Graff nor Risberg, whether considered alone or in combination, disclose or suggest, a protective device for a load branch circuit, comprising a first protective element to provide motor protection and line protection; and an integral second protective element, including a fuse, to provide short-circuit protection, wherein the second protective element is designed to provide overload protection for an electronic switching device, as recited in amended claim 1, or the similar features as recited in amended independent claim 11.

Graff relates to a single-rated combination starter for controlling a ten horsepower motor in a three-phase 460 volt system. The starter includes an overload relay having current sensors, which do not carry motor current, a contactor and fuses sized for the motor. As shown in Fig. 1, the starter includes a mechanical disconnect switch DS, a fuse 6 installed between the disconnect switch DS and a contactor 4.

In rejecting claims 2 and 12, it is admitted that Graff fails to disclose or suggest, a “semiconductor switching device.” In an effort to overcome the admitted deficiencies, it is alleged that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Graff to include the “semiconductor switches of Risberg.” Specifically, it is alleged that it would have been obvious to replace the mechanical disconnect DS of Graff with the SCRs shown in Fig. 1 of Risberg.

Applicant respectfully submits that, even considering *arguendo* that it would have been obvious to so modify the starter of Graff, the combination of references still fails to disclose or suggest that the second protective element is designed to provide overload protection for an electronic switching device.

For example, it is alleged that the mechanical disconnect switch DS corresponds to the claimed “second protective element.” Thus, by modifying Graff to include the SCRs of Risberg, the SCR’s would then allegedly correspond to the claimed “second protective element.” Therefore, the second protective elements, or SCRs, in the modified device would be destroyed upon a short circuit. Further, by modifying the device of Graff to include the SCRs rather than the mechanical disconnect switch DS, there is no “electronic switching device” to be protected by the first and second protective elements. Accordingly, the combination of references fails to disclose or suggest all of the features recited in the rejected claims.

It is also alleged in the Office Action that it would have been obvious to “replace the electromechanical switch of Graff by the semiconductor switches of Risberg” and that by doing so, the fuse 6 would protect the “semiconductor switch” against over currents. However, replacing the electromechanical switch of Graff with the semiconductor switch of Risberg would result in the semiconductor switch being destroyed as the semiconductor switch would not be on the load side of the fuse.

As the combination of references fails to render the claims obvious, withdrawal of the rejection is respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 7, 8, 17 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Graff in view of “current design practice.” The rejection is respectfully traversed.

Claims 7, 8, 17 and 18 are allowable for their dependency on their respective base claims, as well as for the additional features recited therein. Therefore, withdrawal of the rejection is respectfully requested.

Claims 5 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Graff in view of US Patent 6,853,289 to Scoggin. The rejection is respectfully traversed.

Claims 5 and 15 are allowable for their dependency on their respective base claims, as well as for the additional features recited therein. Therefore, withdrawal of the rejection is respectfully requested.

Claims 10 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Graff in view of Riseberg and Scoggin. The rejection is respectfully traversed.

Claims 10 and 20 are allowable for their dependency on their respective base claims, as well as for the additional features recited therein. Therefore, withdrawal of the rejection is respectfully requested.

Claims 3, 4, 13 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Graff in view of US Patent 2,324,852 to Frank. The rejection is respectfully traversed.

Claims 3, 4, 13 and 14 are allowable for their dependency on their respective base claims, as well as for the additional features recited therein. Therefore, withdrawal of the rejection is respectfully requested.

Claims 9 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Graff in view of Riseberg and Frank. The rejection is respectfully traversed.

Claims 9 and 19 are allowable for their dependency on their respective base claims, as well as for the additional features recited therein. Therefore, withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the above remarks and amendments, Applicants respectfully submit that each of the rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

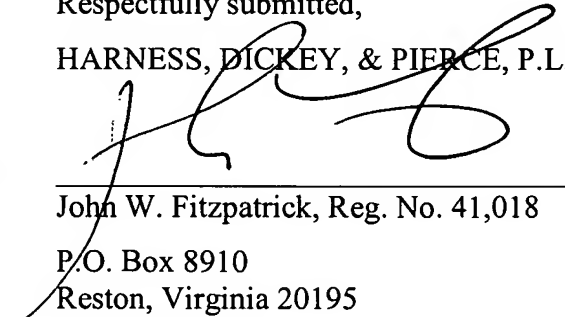
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Fitzpatrick at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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